Products of the oil palm

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by Georges GUILLE-ESCURET and Claude Marcel HLADIK

Palm oil which, as a "sauce", accompanies many dishes is extracted from the pulp of the bright-orange fruit produced by the oil palm, *Elaeis guineensis*. When ripe, large bunches of these palm nuts are collected during the two major periods of production.

Distribution of the oil palm in Africa has been favoured by human activities. Schwartz (1) has argued that in the Côte d'Ivoire palms are found in high density because of the widespread practice of separating the fruits from the spadix before carrying the crop to the village. Seeds that are lost and dispersed germinate, thus building up oil palm populations. Similarly, H. Dijon (2) has shown that, in the Central African Republic, the most productive "wild" populations of oil palm are located on the sites of former villages.

A few ripe fruits are sufficient to make the daily "sauce" (see recipe on preceding page). However, during major periods of production, oil palm fruits are collected in large amounts to produce oil. They are boiled, then crushed in a mortar to separate the fibrous pulp from the kernels. The pulp is squeezed in a wooden press to extract the oil which comes out with a bright red-orange colour due to carotenoids (precursors of Vitamins A). The oil can be stored for several months and part of it is generally sold for cash.

As a major source of fat in the diet of forest populations, this red oil plays an important role in the local economy. In various countries, highly productive—but fragile—varieties of oil palm have been introduced into large plantations with a processing unit. The red colour of the oil they produce is attenuated after refining. Other products or by-products are obtained from these semi-industrial plants, such as cattle food and the oil extracted from the kernels. The latter or "black oil" can be manually extracted by heating the broken nuts and is locally used exclusively in cosmetic and medicinal preparations.

MAKING WINE FROM THE OIL PALM

Besides the "red oil", another edible oil palm product, namely palm wine, made of fermented sap, is widely used throughout the geographical range of this species. Among the Ngbaka and the Ngando populations who inhabit the forest in the Central African Republic, as among many other ethnic groups, the traditional activity of an adult man at dawn and before sunset is to collect the sap of the oil palm.

Of all foods, palm wine is perhaps the most critically appraised: too sweet or too sour, or excessively bitter (a normal taste due to pieces of bark of mahogany or other trees added to the container in which the sap is collected)...

Palm wine is produced daily and must be consumed shortly afterwards. Its use is therefore local and it plays an important role in enhancing the network of social relationships (chapter 5). The relatives of a bride or a newly-married wife get together every day to debate on the merits of the future or newly-acquired son-in-law, based on the taste of the palm wine he provides. In former days, the men of a lineage would gather at night to share the wine and, in the process, would re-affirm their status as a privileged elders' group, while discussing the relative merits of junior lineage members.

Social relationships are also linked to the two techniques presently used to make wine:

- The first of these techniques consists of tapping the sap of a live palm through a cut at the base of the stem of the male flower, and collecting it in a calabash. This method causes little damage to the tree but requires a physical effort and technical skill. A man must climb the palm every morning and evening, with the help of a belt made from a piece of liana (see front cover photograph).
- The second technique requires cutting down the oil palm (generally a young one), and collecting the sap directly from a hole at the top. Every day, the cavity is enlarged and the sap drips through a small piece of bamboo into a calabash or jar (see photo on facing page).

Whatever the method, spontaneous fermentation of the sap is very fast, and the weak alcoholic beverage that results is drinkable immediately.

In the first technique it is generally the spadix of male flowers which is tapped. This is not necessarily in order to spare the female spadix, which will produce the fruit used in making oil and sauces, but rather because, according to the Ngando, the female flowers do not give enough sap, and the wine obtained is not as good as that from male flowers. In the study by H. Dijon (*op. cit.*) it appeared that making wine is beneficial to the palm tree since the old leaves are regularly removed to facilitate climbing—however, an oil palm which is cared for but not tapped produces more fruit. But among the Ngbaka, once an oil palm is tended, it is considered to be the property of the man who exploits it. Such a particular appropriation of a plant without obvious reference to the "owner"—or user—of the land on which it grows shows how deeply the oil palm enters into the traditional social bonds of a society.

In the second technique, killing the tree is not the only drawback. Except during the last day of production, or when the trunk is exposed to direct sunshine, the wine obtained is never as good as when only the inflorescence is tapped. But it allows for a larger production. A great number (up to thirty) of trunks can be visited daily. Despite the destructive aspects of this method, natural regeneration of the oil palm is so rapid and efficient (as a result of seed dispersal) that there is little risk of decreasing most subspontaneous populations of *Elaeis guineensis* (see aerial photo inside back cover).

The two techniques are quite different from a sociological point of view, as in the case of other food products which can be used as cash crops (3). The first procedure, with its socially prescribed forms of consumption, reinforces lineage and marriage bonds as the personal qualities of the person providing the wine (such as strength and fidelity) are projected through the quality and quantity of the product. The second technique tends to erode traditional solidarity as the wine is usually sold and is thus consumed outside the kinship network. In fact, the meaning and social bonds conveyed by a beverage (4), vary considerably from one culture to another.

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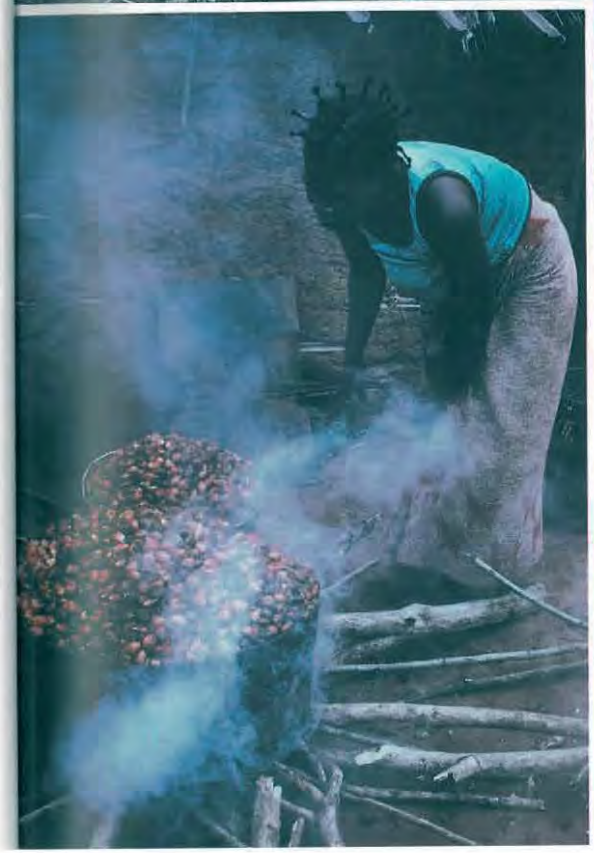

Facing page: Techniques for obtaining the major products of the oil palm, *Elaeis guineensis*, in the Central African Republic, around a Ngbaka village:

The oil is extracted after boiling the fruit (**lower left**). The kernels are separated from the fruits after crushing in a mortar. The fibrous pulp is then placed inside a soft basket and squeezed against a large plank attached to a tree trunk (**lower right**). A lever made of long sticks allows extraction of the oil which is collected in a bowl.

Wine is made from the sap which flows into a bottle from the trunk of an oil palm that has been felled (**upper left**). The hunting bag belongs to the Ngbaka villager who comes twice a day to refresh the cavity in the trunk. Another method (**upper right**) is to tap the male inflorescence of the oil palm and hang a calabash to collect the sap (photos by C.M. Hladik and S. Bahuchet).